# **Performance Based Costing**

## $\mathbf{B}\mathbf{y}$

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#### Introduction

In a Winter 2001-02 *DISAM Journal* article, Volume 24 No. 2, pp 57-64, Lieutenant General Tome H. Walters, Jr., Director, Defense Security Cooperation Agency, indicated that several financial management initiatives are presently underway in the security cooperation community that will move us in the direction of a government that works better and is more efficient costs less. Among these are Performance Based Budgeting (PBB) and Performance Based Costing (PBC). In the above *DISAM Journal* article, Lt Gen Walters addressed the details of PBB. This article complements that discussion, and focuses on PBC and its implementation.

This article focuses on PBC and its implementation. Since the time of that article, the PBB process has been extended to include all claimants of the foreign military sales (FMS) administrative budget, including the military departments (MILDEPs) and defense agencies, as well as the foreign military financing (FMF) administrative budget. Similarly, the budgetary details of the overseas security assistance organizations (SAOs) will be incorporated in the PBB data, via download from the Security Assistance Automatic Resource Management System (SAARMS).

Used in the context of the security cooperation community, PBC is synonymous with Activity Based Costing (ABC) as an approach to management and costs that is gaining popularity in both the private and public sectors. PBC also includes the use of performance measures as a way of assessing accomplishments in keeping with the 1992 Government Performance and Results Act (GPRA) and the 2001 President's Management Agenda. The essence of PBC is that it establishes a relationship between the three main parts of an organization's business processes: resources, activities and outputs (See Figure 1).

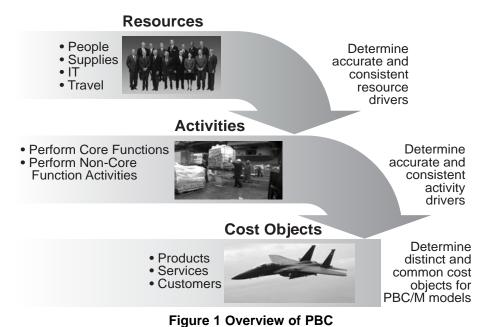


Figure 1 indicates that PBC is a cost allocation methodology that identifies and analyzes costs associated with an organization's activities and links these costs to products, services, customers, and other cost objects based on their consumption of those activities. It is a principal tenet of PBC that resources, such as labor, funding, and material are used or consumed by an organization's key activities. The costs of performing these activities are then assigned to specific outputs or cost objects. Cost objects are the products and services and sometimes the customers of an organization. Costs are assigned to objects based on how they are consumed.

PBC provides a more dynamic way of viewing and assessing an organization's costs. The focus is on the activities that an organization performs, rather than on the discrete costs elements that make up these activities. Figure 2 highlights this more dynamic, a focused way of viewing costs in the context of activity.

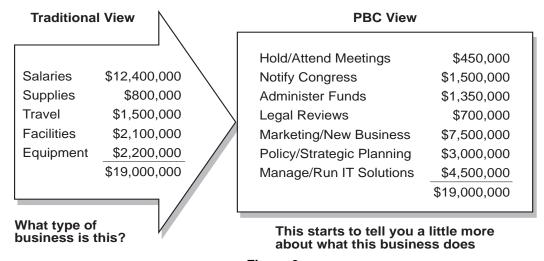


Figure 2

Similarly, PBC traces costs to cost objects according to the activities performed to produce them. If the costs appear to be high or in some way out-of-line, PBC allows us to understand which activities are driving this cost. In this way, it provides a framework for analysis and management decision-making.

The uses of PBC are both strategic and tactical. It is the natural complement to Performance Based Budgeting. PBC provides an important source of information regarding business-sustaining activities and removes much of the distortion in costs that is usually inherent in conventional unit-based costing systems.

#### **Activity Based Costing in the Public Sector**

The Bush Administration has placed considerable emphasis on understanding the costs of government, and, particularly, on assessing the results that come from these costs. Additionally, the President's Management Agenda highlights the integration of budgets and performance. Among the factors underlying this integration is a clear appreciation of the costs associated with performing specific missions and functions.

Along these same lines, most public sector organizations are facing intense pressure to do more with less. This has proven to be a tremendous challenge that often requires:

- Determining the true costs of services;
- Implementing process improvements;

- Determining make vs buy outsourcing decisions; and
- Aligning activities to mission and strategic planning

It appears that many of the case studies examined agreed that activity based costing, a private sector financial management tool, is the best solution to address these challenges.

Activity based costing (ABC) has been intermittently applied by federal agencies over the last decade. Several researchers agree that activity-based costing targets a chronic weakness in Federal financial systems. These systems are good at tracking how agencies spend their budgets, but do not show the full cost of activities and programs. However, ABC captures these costs by apportioning spending across an agency's programs. Many of the public sector proponents of ABC view it as a financial management tool for solving federal management problems.

The early 1990s witnessed the use of ABC in the public sector. The Internal Revenue Service (early 1900s) and the General Services Administration (1997 and 1998) were the first to conduct ABC pilot tests. The Patent and Trademark Office (PTO) was the first agency to deploy ABC agency-wide. It was used to persuade Congress to change patent and trademark fees in 1999. By showing the cost of achieving a unit of output given certain levels of labor inputs, ABC provided an empirical basis for raising or lowering fees.

## **PBC Project Security Cooperation**

The DSCA and the MILDEPs are engaged in a PBC project within FMS administrative funded organizations. This effort, called performance based costing, supports the DSCA implementation of a performance based budgeting system. The overall objective of the PBC project is to provide an accurate and thorough cost infrastructure of the security cooperation community to support the new performance based budgeting (PBB) process by providing costs of core functions, processes, and MILDEP products/services, which will ultimately be used to better justify budgets, provide management with improved cost data, and to act as the foundation for future strategic needs.

PBC is designed to provide decision-makers at all levels in the security cooperation community with sufficient cost and programmatic information to manage their organizations. Additionally, PBC will help managers better understand macro-level aspects of the security cooperation business, such as the costs structure underlying the FMS administrative rate, the FMF administrative budget and the appropriate level of the annual FMS administrative ceiling.

The need to better understand the costs of conducting the security cooperation operations has been a major concern for a long time. Specific objectives of the PBC effort include, but are not limited to the following:

- To be able to calculate total costs and cost by core function(s) for each country program, as well as other cost objects;
- To compare costs for similar processes across MILDEPS, training commands and military headquarters;
- To calculate cost for each core function to compare the PBB FMS administrative budget and the FMF administrative budget to actual costs;
  - To highlight costs in total and by program for all non-FMS functions; and

• To provide cost data to each MILDEP for the purposes of allocating the FMS Administrative budget and the FMF administrative budget.

PBC will provide the optimum method for gathering and understanding these costs. It will assign resource costs to activities based on the use of resources, and assigns activity costs to products based on the use of activities.

These activity costs are rolled up to the six FMS core functions at various organizational levels. Furthermore, the PBC program will show the costs of core business functions to better justify the FMS administrative budget inputs and lead to a better understanding of the costs in support of the security cooperation program. Figure 3 highlights the core function approach being used in both PBC and PBB.

Figure 3 Core Functions			
FMS Administration Core Functions	Definition		
Pre-Letter of Request (LOR)	Efforts expended prior to receipt of a LOR, includes responding to inquiries, pre-requirements determination, developing a Total Package Approach (TPA), if required or specifying the mix of FMS and Direct Commercial Sales (DCS) under a hybrid approach.		
Case Development	Efforts required to process customer request, gather, develop and integrate price and availability data for preparation of a Letter of Offer and Acceptance (LOA). These efforts continue from receipt of a customer's LOR through case preparation, staffing, and customer acceptance.		
Case Execution	Overall coordination to initiate case implementation efforts required to conduct and execute case management, security assistance, team management, technical, logistical, and financial support, and the contractual efforts under acquisition and contracting.		
Case Closure	All actions required to perform logistical reconciliation, financial reconciliation, certify line, and case closure.		
Other Security Cooperation	All efforts involved in the administration and management of special programs and projects associated with Security Cooperation requirements, particularly, the non-FMS Security Cooperation programs authorized under the Foreign Assistance Act, such as International Military Education and Training (IMET), the Foreign Military Financing (FMF) program, the grant Excess Defense Articles (EDA) program, and Direct Commercial Sales.		
Business Sustaining	Efforts required in providing automation/information technology, training, resource management and personnel management that cannot be traced directly to one of the other five core functions or specific cost objectives.		

As background to the PBC effort, initial assessments were done in the September 2000 thru February 2001 time period of the existing costing infrastructure in DSCA and the military departments. The overall purpose of the assessments was to establish an appropriate cost system for DSCA and the MILDEPs to support PBB in the future. However, the following three specific objectives of the assessments were identified:

- To show the organizational complexity of each entity;
- To show their existing cost model capability; and
- To show the role that cost data played in the budgetary process.

Based on the assessments and other information, "to-be cost" models, and an overall architecture of the PBC system were developed. This overall architecture as exhibited in Figure 4 provides for a diverse number of models at the activity level while still rolling up to a corporate model. Following a series of briefings to the MILDEPS and to the DSCA leadership, a decision was made to move towards these costs models. Figure 4 provides a high level schema of the PBC corporate model for a diverse number of models at the activity level while still rolling up to a corporate.

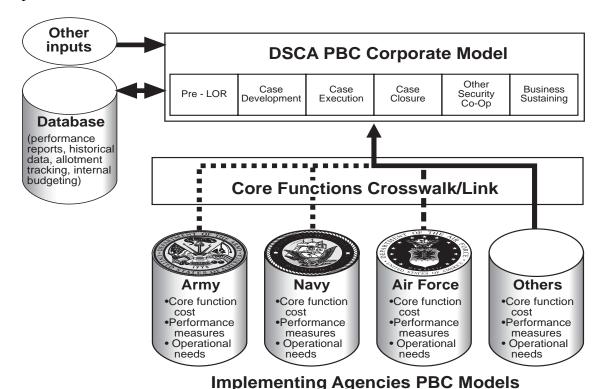


Figure 4 PBC Corporate Model

The development of the PBC project entails a number of critical planning, technical and process-related steps. Five distinct technical tasks, occurring in two phases, were identified. These tasks are delineated in Figure 5. Figure 5 shows an integrated and robust cost system that includes PBC models at the MILDEPs and others level linked to a corporate model that will reside at DSCA

Additionally, Figure 6 shows the scope of the PBC project. The creation of the Corporate model includes, DSCA headquarters, DSADC, DISAM, DIALS, DLO and the MILDEPs.

The five distinct tasks are as follows:

- Design costing infrastructure;
- Complete detailed planning;
- Create static ABC models;
- Migrate ABC models to PBC; and
- Mature PBC to PBB.

Two of the tasks, design costing infrastructure and complete detailed planning, occurred during Phase 1 of the project. The three remaining tasks, Phase II, are currently in progress.

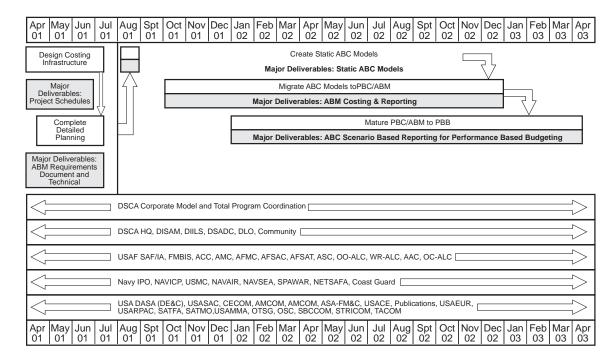


Figure 5 PBC Project Schedule

	DSCA		Navy
DSCA-HQ DISAM DSADC DLO DIALS  DASA (DE&C) SAS-FM&C USACE Publications USAREUR USARPAC TRADOC SATFA SATMO OTSG MEDCOM USAMMA USASAC  AMCOM CECOM OSC SBCCOM STRICOM TACOM	Crystal City, Virginia WPAFB, Dayton, Ohio Mechanicsburg, Pennsylvania Denver, Colorado Newport, Rhode Island  Army  Arlington, Virginia Arlington, Virginia Washington, D.C. Washington, D.C. Germany Fort Shafter, Hawaii  Fort Monroe, Virginia Fort Bragg, North Carolina  Fort Sam Houston, Texas Fort Detrick, Maryland Alexandria, Virginia and New Cumberland, Pennsylvania Huntsville, Alabama Fort Monmouth, New Jersey Rock Island, Illinois Rock Island, Illinois Orlando, Florida Warren, Michigan	Navy IPO NAVAIR NAVSEA SPAWAR NETSAFA USMC NAVICP NALC Coast Guard  SAF SAF/IA SAF/FM AFMC AFMC HQ AFSAC OO-ALC OO-ALC WR-ALC AAC SAC ESC SMC ACC AMC AFSAT	Washington, D.C. Pax river, Maryland Crystal city, Virginia San Diego, California Pensacola, Florida Quantico, Virginia Philadelphia, Pennsylvania Mechanicsburg, Pennsylvania Washington, D.C.  Air Force  Rosslyn, Virginia Washington, D.C.  WPAFB, Dayton, Ohio WPAFB, Dayton, Ohio Hill AFB, Odgen, Utah Tinker AFB, Oklahoma Robbins AFB, Georgia Eglin AFB, Florida WPAFB, Dayton, Ohio Hanscom AFB, Massacheusetts Los Angeles AFB, California Langley AFB, Virginia Scott AFB, Illnois Randolph AFB, Texas

Figure 6 Agencies Being Modeled

The creation of static PBC models is important because it begins the development of a static or non-automated PBC model. Since some of the MILDEPs already have models, this stage was comprised of refining existing models. The objective of this task was to develop a static model for the organizations participating in the PBC project that conforms to the structure as developed in Phase I, meets the needs of the Corporate Model, and provides operational use to the MILDEPs and the DSCA. Figure 6 shows the various agencies that are being modeled. Each agency is currently in varying stages of development.

Migrating ABC models includes taking the static ABC model to an active or live state by developing automated feeds/links to update the resources (i.e., personnel names and salaries) by interfacing between the appropriate legacy system and the ABC model and developing methods to update the resource drivers (i.e., percent of time spent on or against activities by resources).

The final task of Phase II, mature PBC to PBB, entails using the PBC model to support the new PBB process, and to assist in organizational decision-making. Additionally, this phase is very important because it is concerned with maintaining the model and using the system for cost based scenario development to support PBB.

Finally, Figure 6 shows the various agencies that are being modeled and the overall scope of the PBC project. Each agency is currently in varying stages of development.

## **Summary**

The rapidly changing and complex world of security cooperation requires a thorough and accurate system of capturing costs, justifying budgets, as well as providing managers with solid decision support data. As security cooperation relies more on hybrid and commercial vehicles, the structure and fabric of the FMS case is continuing to become more varied and tailored to specific customer and/or regional needs. Along with the difficulty of pricing and tracking costs in this new environment, the need to justify even the traditional base and mix of services has been requested by various constituents. To this end, DSCA and the MILDEPs embarked on the task of assessing the current ability of the FMS community to develop and report accurate cost information for the FMS core functions, as well as to devise an optimum FMS costing system. The results of this assessment indicated that PBC was the optimum costing system.

#### **About the Authors**

Dr. Bobby Davis is an Associate Professor of Marketing, School of Business and Industry at Florida A&M University in Tallahassee, Florida. He is presently serving as a Summer Faculty Fellow in the Office of the Secretary of Defense's Minority Institutions Program, working with the Resource Management Division, Office of the Comptroller, Defense Security Cooperation Agency.